

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/057305 A3

(51) International Patent Classification⁷: G01N 1/20,
33/04, A01J 5/04

SE-646 91 Gnesta (SE). ANDERSSON, Lars [SE/SE];
Ymervägen 19, S-151 60 Södertälje (SE).

(21) International Application Number:
PCT/DK2003/000926

(74) Agent: PLOUGMANN & VINGTOFT A/S; Sundkrogs-gade 9, P.O. Box 831, DK-2100 Copenhagen Ø (DK).

(22) International Filing Date:
19 December 2003 (19.12.2003)

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

Published:

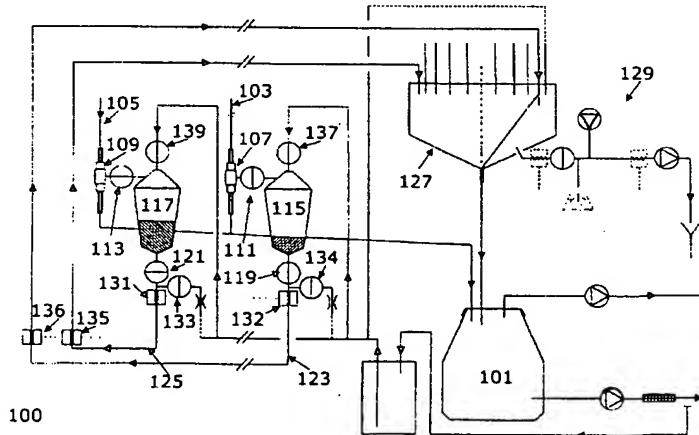
(30) Priority Data:
PA 2002 01944 19 December 2002 (19.12.2002) DK
60/434,415 19 December 2002 (19.12.2002) US

— with international search report

[Continued on next page]

(54) Title: A MILK CONVEYER DEVICE

WO 2004/057305 A3



100

(57) Abstract: The invention relates to a milk conveyer device (100) for an animal. The milk conveyer device is to be implemented in a milking arrangement which comprises a milk storage reservoir (101) coupled to a milking attachment for attaching to an animal to be milked through a main milk conduit (103, 105). A sample element (109, 111) extracts milk, which is collected in a sample reservoir (115, 117) is connected to an analysis element (129) through an analysis conduit (123, 125). During the flow of the milk from the sample reservoir to the analysis element (129), the milk itself provides a cleaning effect. The flow is initially at a high flow rate and later at a reduced flow rate. A plurality of analysis conduits (123, 125) are connected to the analysis element (129), which comprises a selector unit (127), which couples milk from one of the analysis conduits (123, 125) to the analysis element (129). The device provides a self-cleaning effect and a low carry-over of milk between the two successive milking operations, i.e. between the milk of two different animals.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
12 August 2004

INTERNATIONAL SEARCH REPORT

national Application No
PCT/DK 03/00926

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01N1/20 G01N33/04 A01J5/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G01N A01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DE 195 47 892 A (WESTFALIA SEPARATOR AG) 3 July 1997 (1997-07-03) column 2, line 28 - line 54; figure	1-6,8,19
Y	column 2, line 39 - line 41	6
Y	column 3, line 4 - line 10	
Y	column 3, line 30 - line 36	9,10
Y	column 3, line 43 - line 45	
Y	DE 35 02 858 A (HELMIG REINHOLD) 10 October 1985 (1985-10-10) page 4, paragraph 4 page 6, last paragraph; figure 1	1-6,8-10
Y	DE 43 43 717 A (JANSKY GMBH) 22 June 1995 (1995-06-22) column 3, line 55 -column 4, line 28; figure	19

	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

T later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the International search

28 May 2004

Date of mailing of the International search report

08/06/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Hocquet, A

INTERNATIONAL SEARCH REPORT

International Application No
PCT/DK 03/00926

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 911 891 A (PLATT MOSES) 27 March 1990 (1990-03-27) column 5, line 33 - line 51 column 7, line 27 column 7, line 47 - line 55 ---	2
A	US 4 771 007 A (TIPPETTS EARL L ET AL) 13 September 1988 (1988-09-13) column 4, line 57 - line 66 ---	3
A	AU 70458 81 A (QUEENSLAND STATE) 26 August 1982 (1982-08-26) the whole document ---	7,33
A	US 5 743 209 A (BAZIN SERGE ET AL) 28 April 1998 (1998-04-28) column 4, line 55 -column 5, line 24 column 7, line 4 - line 11; figure 1 column 8, line 24 -column 9, line 14 ---	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No	
PCT/DK 03/00926	

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
DE 19547892	A 03-07-1997	DE 19547892 A1		03-07-1997
		SE 515093 C2		11-06-2001
		SE 9603989 A		22-06-1997
DE 3502858	A 10-10-1985	DE 3502858 A1		10-10-1985
DE 4343717	A 22-06-1995	DE 4343717 A1		22-06-1995
		GB 2285037 A		28-06-1995
US 4911891	A 27-03-1990	AT 61477 T		15-03-1991
		CA 1293912 C		07-01-1992
		DE 3677859 D1		11-04-1991
		EP 0214846 A2		18-03-1987
		HK 75593 A		06-08-1993
		JP 1727038 C		19-01-1993
		JP 4008749 B		18-02-1992
		JP 62087860 A		22-04-1987
		SG 57493 G		09-07-1993
		US 4910151 A		20-03-1990
US 4771007	A 13-09-1988	DE 3337020 T		22-03-1984
		GB 2127156 A , B		04-04-1984
		WO 8303305 A1		29-09-1983
AU 7045881	A 26-08-1982	NONE		
US 5743209	A 28-04-1998	AU 690312 B2		23-04-1998
		AU 3121295 A		04-03-1996
		CA 2172804 A1		15-02-1996
		DE 69522654 D1		18-10-2001
		DE 69522654 T2		21-11-2002
		EP 0721297 A1		17-07-1996
		WO 9603859 A1		15-02-1996
		NZ 290469 A		24-11-1997